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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO. <i>101</i>
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EXAMINER

ART UNIT	PAPER NUMBER
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DATE MAILED:

7

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/534,376

Applicant(s)

ALITALO ET AL.

Examiner

Eileen B. O'Hara

Art Unit

1646

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) 1-37 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☐ Claim(s) ____ is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) 1-37 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____
- 4) ☐ Interview Summary (PTO-413) Paper No(s) ____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. Upon reconsideration, the election/restriction mailed on July 3, 2001, Paper No. 6, has been vacated and replaced by this election/restriction requirement.

Election/Restrictions

2. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - A. Claims 1-37, in so far as they are drawn to a method of regulating endothelial cell growth or treating a patient by administration of a VEGF-C polypeptide, classified in class 514, subclass 2, for example.
 - B. Claims 5 and 8, in so far as they are drawn to a method of treating a patient by administration of an antibody to an amino acid sequence comprising a portion of SEQ ID NO: 8 effective to permit binding, classified in class 514, subclass 2, for example.
 - C. Claims 38 and 39, drawn to a method for screening for inhibitors of the Flt4 receptor kinase by binding assay, classified in class 435, subclass 7.1, for example.

The inventions are distinct, each from the other because of the following reasons:

Inventions A and B are related in that they both are methods of treatment, but the methods are distinct because they use distinct products, which require non-coextensive searches.

Inventions A and C are related in that they both use a common product, the VEGF-C polypeptide. In the instant case the VEGF-C polypeptide can be used in the method of treatment of invention A, and also as the ligand in the screening assay for inhibitors of Flt4

Art Unit: 1646

tyrosine kinase, but these are materially different methods because they require different starting materials (except for the polypeptide), methods steps and goals.

Inventions B and C are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the method of treatment with anti-VEGF-C antibody has different starting materials, steps and goals from the method of screening for inhibitors of Flt4 tyrosine kinase.

3. If invention A is elected, restriction to one of the following inventions is also required under 35 U.S.C. 121:

- I. Method of using VEGF-C having the amino acid sequence of SEQ ID NO: 8.
- II. Method of using VEGF-CΔ156, wherein the cysteine residue at position 156 of SEQ ID NO: 8 has been deleted or replaced by another amino acid.
- III. Method of using VEGF-CΔ152, wherein the cysteine residue at position ¹⁵²~~156~~ of SEQ ID NO: 11 has been deleted or replaced by another amino acid.
- IV. Method of using VEGF-CΔ155, wherein the cysteine residue at position ¹⁵⁵~~156~~ of SEQ ID NO: 13 has been deleted or replaced by another amino acid.
- V. Method of using a polypeptide lacking at least carboxy-terminal residues of SEQ ID NO: 8 beyond residue 227.
- VI. Method of using a polypeptide including from residue 161- 211 and lacking at least carboxy-terminal residues of SEQ ID NO: 8 beyond residue 227.

Art Unit: 1646

- VII. Method of using a polypeptide including from residue 131-211 and lacking at least carboxy-terminal residues of SEQ ID NO: 8 beyond residue 227.
- VIII. Method of using a polypeptide including from residue 113-213 and lacking at least carboxy-terminal residues of SEQ ID NO: 8 beyond residue 227.
- IX. Method of using a polypeptide including from residue 32-227 and lacking at least carboxy-terminal residues of SEQ ID NO: 8 beyond residue 227.
- X. Method of using a variant of VEGF-CA156, wherein the cysteine residue at position 156 of SEQ ID NO: 8 has been deleted or replaced by another amino acid.
- XI. Method of using a variant of VEGF-CA156, wherein the cysteine residue at position 156 of SEQ ID NO: 8 has been deleted or replaced by another amino acid and having a continuous portion having as its amino acid terminal residue an amino acid between residues 102 and 114 of SEQ ID NO: 8 and having as its carboxy terminal residue an amino acid between residues 212 and 228 of SEQ ID NO: 8, or
- XII. Method of using a variant of VEGF-CA156, wherein the cysteine residue at position 156 of SEQ ID NO: 8 has been deleted or replaced by another amino acid and having said polypeptide with an amino acid sequence set forth in SEQ ID NO: 8 from residue 103 to residue 227.
4. If invention B is elected, restriction to one of the following inventions is also required under 35 U.S.C. 121:
- XIII. Method of using antibody to VEGF-C having the amino acid sequence of SEQ ID NO: 8.

- XIV. Method of using antibody to VEGF-CA156, wherein the cysteine residue at position 156 of SEQ ID NO: 8 has been deleted or replaced by another amino acid.
- XV. Method of using antibody to VEGF-CA152, wherein the cysteine residue at position 156 of SEQ ID NO: 11 has been deleted or replaced by another amino acid.
- XVI. Method of using antibody to VEGF-CA155, wherein the cysteine residue at position 156 of SEQ ID NO: 13 has been deleted or replaced by another amino acid.
- XVII. Method of using antibody to a polypeptide lacking at least carboxy-terminal residues of SEQ ID NO: 8 beyond residue 227,
- XVIII. Method of using antibody to a polypeptide including from residue 161-211 and lacking at least carboxy-terminal residues of SEQ ID NO: 8 beyond residue 227,
- XIX. Method of using antibody to a polypeptide including from residue 131-211 and lacking at least carboxy-terminal residues of SEQ ID NO: 8 beyond residue 227,
- XX. Method of using antibody to a polypeptide including from residue 113-213 and lacking at least carboxy-terminal residues of SEQ ID NO: 8 beyond residue 227,
- XXI. Method of using antibody to olypeptide including from residue 32-227 and lacking at least carboxy-terminal residues of SEQ ID NO: 8 beyond residue 227.
- XXII. Method of using antibody to a variant of VEGF-CA156, wherein the cysteine residue at position 156 of SEQ ID NO: 8 has been deleted or replaced by another amino acid.
- XXIII. Method of using antibody to a variant of VEGF-CA156, wherein the cysteine residue at position 156 of SEQ ID NO: 8 has been deleted or replaced by another amino acid and having a continuous portion having as its amino acid terminal residue an amino acid between residues 102

and 114 of SEQ ID NO: 8 and having as its carboxy terminal residue an amino acid between residues 212 and 228 of SEQ ID NO: 8, or

XXIV. Method of using antibody to a variant of VEGF-C Δ 156, wherein the cysteine residue at position 156 of SEQ ID NO: 8 has been deleted or replaced by another amino acid and having said polypeptide with an amino acid sequence set forth in SEQ ID NO: 8 from residue 103 to residue 227.

5. Although the classifications for these various proteins or antibodies to these proteins are overlapping, each represents a patentably distinct product with distinct physical and functional characteristics. For example, the various VEGF-C variant proteins may have either agonistic or antagonist functions. Additionally, each would require separate searches, which would be burdensome.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, the need for different searches and because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

6. Applicants are advised that this is not a species election, but a restriction requirement.

To be fully responsive to this requirement, Applicants are required to point out which claims correspond to the elected invention.

Art Unit: 1646

7. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a petition under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eileen B. O'Hara whose telephone number is (703) 308-3312. The examiner can normally be reached on 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Yvonne L. Eyler can be reached on (703) 308-6564. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-4242 for regular communications and (703) 308-4242 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0196.

EO'H
August 16, 2001

**CHRISTINE J. SAOUD
PRIMARY EXAMINER**

Christine J. Saoud